

SIGNALIZED INTERSECTION SAFETY STRATEGIES



Relocate Signal Hardware out of Clear Zone

WHERE TO USE

Signalized intersections where signal hardware is located within the clear zone or is a sight obstruction (particularly on high-speed approaches).



Photo by: Texas Transportation Institute

DETAILS

Traffic signal hardware represents a potential roadside hazard similar to utility poles, trees, and other large fixed objects. Traffic signal supports and controller cabinets should be located as far from the edge of the pavement as possible, especially on high-speed facilities, as long as this does not adversely affect visibility of the signal indications. Consideration should be given to shielding the signal hardware if it cannot be relocated. Where there is an existing roadside barrier, the cabinet should be located behind the barrier when feasible. If practical, signal supports in medians should be located to provide more than the minimum clearance required by the agency. The signal hardware should not obstruct sight lines.

Post-mounted signals in the median are discouraged due to the safety hazard they present to drivers.

KEY TO SUCCESS

The new location of the signal hardware should not present a greater safety hazard than the previous location by creating a sight distance obstruction.



ISSUES

Care should be taken to ensure signal hardware is not relocated to a position where it obstructs sight distance or presents a safety hazard to pedestrians or bicyclists. The Americans with Disabilities Act should be consulted to ensure compliance.

TIME FRAME ●○○○

Implementation time will be relatively short if additional right-of-way (ROW) is not needed in order to move the hardware outside the clear zone. Acquisition of ROW will increase implementation time.

COSTS ●●○○○

Costs will be moderate if acquisition of ROW is not required to move the hardware outside the clear zone. Acquisition of ROW will increase costs.

EFFECTIVENESS

TRIED: Relocating the signal hardware outside the clear zone should reduce the likelihood of vehicles striking the hazard. The effectiveness of this strategy is difficult to estimate given the range of conditions and relative infrequency of such conflicts at any one location.

COMPATIBILITY

Relocation of signal hardware is compatible with most other strategies to improve safety at signalized intersections.

SUPPLEMENTAL INFORMATION

Highway agencies should review their traffic engineering and design policies regarding the clear zone and location of signal hardware to ensure appropriate actions are being taken on routine projects.

For more details on this and other countermeasures: <http://safety.transportation.org>

For more information contact:

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